MARINE REVIEW.

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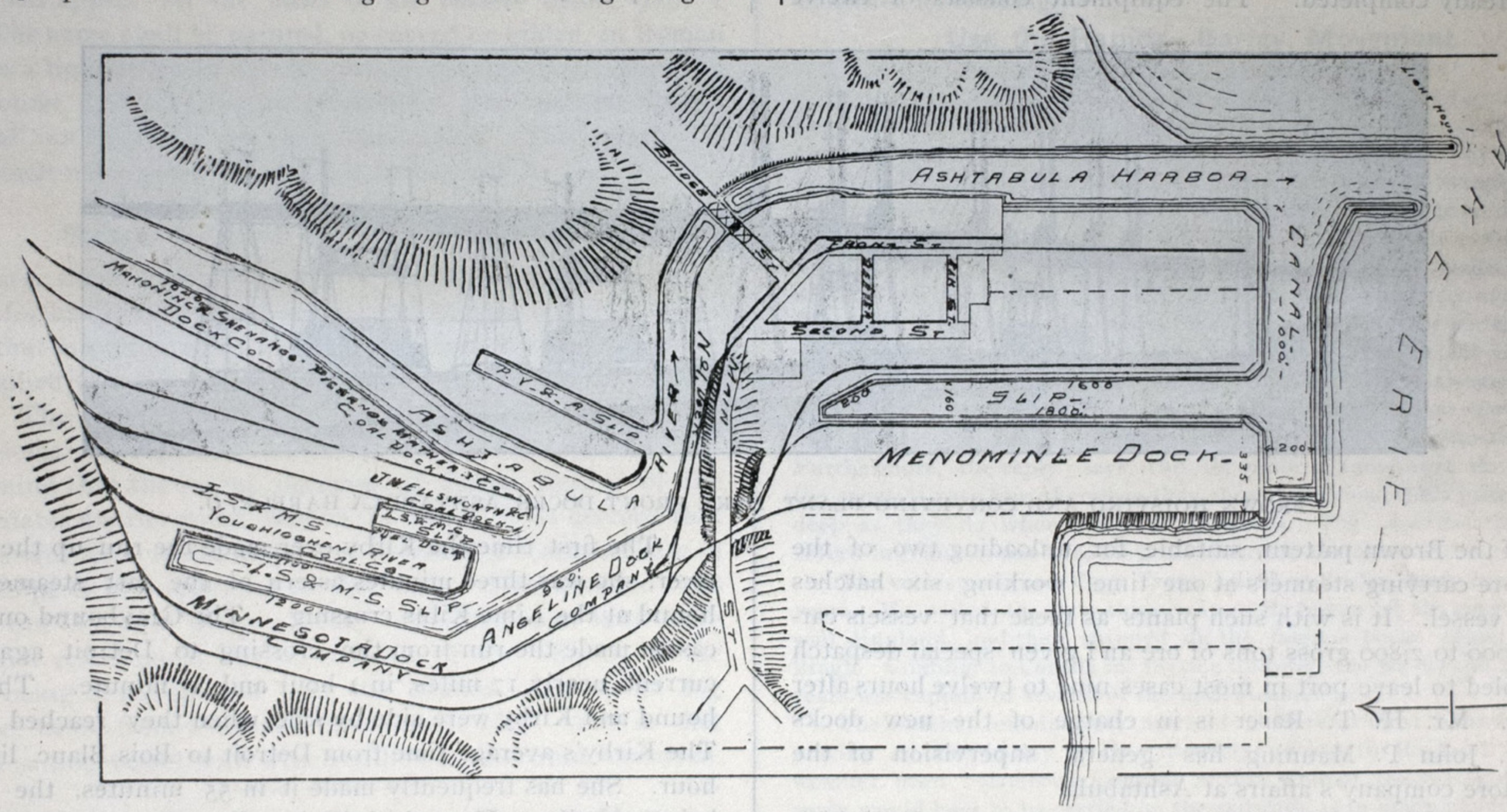
Lake Shore Railway and the Ore Trade.

Within a few days past the Lake Shore & Michigan Southern Railway Company began receiving iron ore on its new lake front docks at Ashtabula Harbor, O., a small teriminal point a few miles east of Cleveland that has a record of receiving and shipping to iron furnaces more ore than any port in this country. The building of these docks is an important departure in the business of handling ore on the lakes, inasmuch as the railway company, finding itself unable to increase its facilities for handling ore and coal in the harbor, has been compelled to go out into the lake and construct a breakwater, making land and canals within the enclosure for the accommodation of the increasing traffic. Just 1,800 feet front of the new docks has been completed, in a work that contemplates an addition of 8,300 feet front to the company's present docks. Before going into detail regarding the new enterprise however, it may be well to note the increase in the ore business at Ashtabula. There are two railway companies controlling the docks, the Pennsylvania company on the east side of the river and Lake Shore on the west. The building of these docks will place the Lake Shore company far in the lead of all competitors in the trade on Lake Erie, and the following table will prove interesting in showing the Lake Shore's proportion of the business during the several years past:

YEAR.	Total receipts, Ashtabula, gross tons.	Receipts, Lake Shore Co., Ashtabula, gross tons.	Lake Shore percentage of entire business.
1883	670,000	293,669	43.8
1884	650,000	239,243	36.8
1885	582,000	168,780	29.0
1886	672,000	252,624	37.5
1887	1,103,839	528,936	47.9
1888	1,288,530	594,300	45.3
1889	1,963,490	1,039,920	52.9
1890	2,176,730	1,177,620	54.1

Ore was received at Ashtabula Harbor by the Pennsylvania Company as early as July 1873, but the foregoing will serve to show the increase in business during the most important period, the past four or five years, within which time the lake bnsiness in most branches has been doubled, and even trebled in some cases. The Lake Shore company's receipts of ore at Ashtabula began with the season of 1875. During that year only 15,000 tons were received and the aggregate for any one year did not reach 100,000 tons until 1880.

The present dock frontage in Ashtabula, irrespective of the new lake front improvements undertaken by the Lake Shore company, is 10,200 feet for coal and ore, 5,200 feet of which is on the Lake Shore or east side of the river and 5,000 feet on the Pennsylvania or west side. The accompanying drawing shows only the Lake Shore side, but includes the plan of breakwater and slips on the lake front. Of the 5,200 feet of dock front on the Lake Shore side within the harbor, 4,000 feet is used for ore, so that that portion of the lake front docks already completed, 1,800



L. S. & M. S. RY. DOCKS, ASHTABULA HARBOR, O., NEW LAKE FRONT IMPROVEMENTS.

feet, brings the total frontage for ore up to 5,800 feet, or an increase in capacity of 45 per cent. The new docks under way will add 4,700 feet front, or 117 per cent., to the capacity within the harbor, and if the plan of the proposed east slip is carried out the total of outside dock will be 8,300 feet front, or more than double the entire frontage in ore within the harbor. Work on that portion of the 4,700 feet of dock not equipped for service this fall will be pushed to completion during the fall and winter, although the construction of the proposed second slip to the east of the present workings may be delayed to await a further demand for dock space from iron ore interests. When this work was planned, a little more than a year ago, the demand for dock space was very urgent, on account of a boom in the ore trade. Conditions have since changed materially, as has been shown by the restriction in the present season's output from Lake Superior, but there is every indication of another active season in 1892, and it is confidently expected that the demand for ore before another season comes around will warrant the construction of this second slip.

Some idea of the amount of material and the expense attend-

ing the construction of these docks can be formed from a statement of material used in the work so far. In the construction of the breakwater and docks, there was put down 127 cribs, 40x24 feet and from 8 to 22 feet in depth, with an average depth of 16 feet. Four thousand cords of lime stone, 225 tons of iron drift bolts and spikes and 7,500,000 feet of timber have gone into the work. Of the timber, about 4,000,000 feet was pine, 3,000,000 feet hemlock and 500,000 feet oak and elm. Rock dredging amounted to 100,000 cubic yards and earth dredging 250,000 cubic yards, in addition to the very large amount of filling necessary in construction of this nature. The work was started on July 20, 1890, and the first crib was sunk Aug. 6, 1890. It was necessary to push operations while in the open lake, and in the four months intervening between Aug. 1 and Dec. 1, seventy-three cribs were sunk. The additional cribs were sunk at irregular intervals from that time on, but the work was not pushed as it had been at the outset. A. V. Powell of Chicago is the engineer in charge, the work being a special commission with him. Mr, Powell makes a specialty of dock construction. He built and equipped E. L. Hedstrom's big coal dock in Chicago and the ore docks at South Chicago, and had charge of the Calumet and Chicago Dock Company's operations before coming here.

In a second engraving accompanying this article is presented a view of the ore handling equipment of that portion of the new docks already completed. The equipment consists of twelve hoists of the Brown pattern, suitable for unloading two of the largest ore carrying steamers at one time, working six hatches on each vessel. It is with such plants as these that vessels carrying 2,000 to 2,800 gross tons of ore and given special despatch are enabled to leave port in most cases nine to twelve hours after arriving. Mr. H. T. Raser is in charge of the new docks and Mr. John P. Manning has general supervision of the Lake Shore company's affairs at Ashtabula.

[NOTE.—Through an error in making the engraving which shows the general plan of docks, the dagger intended to indicate north was turned in the opposite direction.—ED.]

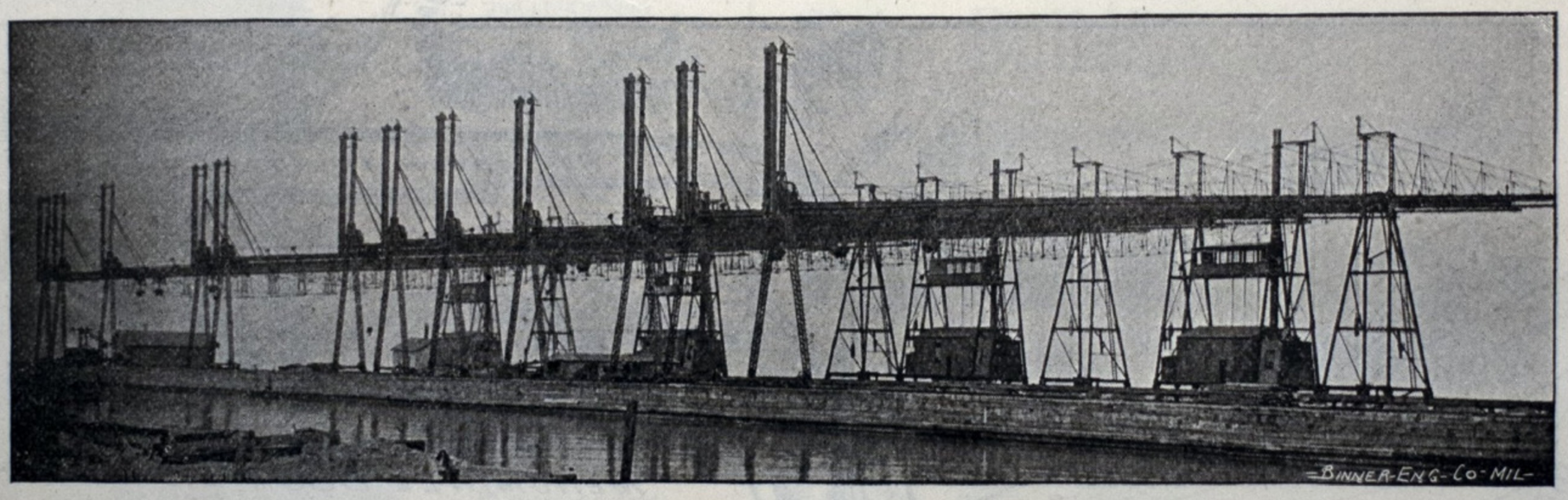
Contract for Two "Monitors."

Notwithstanding the present slump in the freight market, there are more negotiations for new boats under way than ever before in the history of lake shipbuilding. From present indications all the yards will be full of work during the coming winter. The contracts for the two boats for the Lake Superior Iron Company, mentioned in last week's REVIEW, was let to the Cleveland Ship Building Company. The building of these two boats marks a change of type in lake cargo steamers. The dimensions of the boats will be 266 feet keel, 38 feet beam, and 23 feet depth, with a water bottom of 4½ feet. Below the water line they will be similar to the Wawatam, with engines of her power. The deck will have the same crown as in an ordinary steamer but the sides will tumble home to meet it. The new boat will have the usual stem and stern frames, and the scantlings and frames used will entitle the boat to Lloyds classification. Forward there will be a turret containing steering wheel, anchors, etc., and aft there will be a solid steel house with no openings, save windows with heavy shutters. On top of this house will be cabins and a texas containing steering wheel. The new type of steamer will be known as the "monitor."

Two of the largest Buffalo line fleets will receive additions, one first class steel package freighter to each. Both may be built in Cleveland. To this may be added many more negotiations that are not quite so tangible. Among these is the report that the Goodrich Line will be augmented by a steel passenger steamer, and that the Inter-Ocean Transportation Company have renewed their consideration for another Maryland. The contract for two unusually large freighters for the Minnesota Iron Company is still hanging fire.

The Side-Wheel Steamer Frank E. Kirby.

With this issue is presented a supplemental engraving of the side-wheel steamer Frank E. Kirby, built by the Detroit Dry Dock Company and engaged in excursion business between Detroit, Put-in Bay and Sandusky. The Kirby has led the fast boats of the lakes for two seasons past, and was the object of considerable attention during the past season, on account of a great deal of talk of a race with the new City of Toledo, an engraving of which, with her horizontal triple expansion engines we hope to present shortly.



BROWN HOISTING AND CONVEYING PLANT, LAKE FRONT DOCKS, ASHTABULA HARBOR, O.

The first time the Kirby ever made the run up the Detroit river, she was three minutes astern of the fast steamer Greyhound at the Lime-Kilns crossing. The Greyhound on that occasion made the run from the crossing to Detroit against the current, nearly 17 miles, in 1 hour and 1 minute. The Greyhound and Kirby were side by side when they reached Detroit. The Kirby's average time from Detroit to Bois Blanc light is 1 hour. She has frequently made it in 55 minutes, the distance being 19 miles. Her schedule time from Detroit to Put-in Bay is 3 hours and 5 minutes, a distance of 57 miles. She has made the run from Detroit to Put-in Bay in 2 hours and 55 minutes. Her schedule time for the round trip between Detroit and Sandusky and return is to leave Detroit at 8:30 a. m., returning to Detroit at 9:30 p. m., and during the passenger season she very rarely arrives at Detroit behind time. The number of miles she has to run on the round trip is 160. She makes nine landings and sometimes twelve or thirteen. During the busy season she lands at Put-in Bay from 600 to 1,000 excursionists and takes them on board on her return trip from Sandusky. At Sandusky she handles on an average 75 tons of freight a day and takes on coal for the round trip. She has made the round trip from Detroit to Sandusky and back, with all landings, handling 50 tons of freight and taking on fuel for the round trip in 11 hours and 55 minutes. With 150 tons of freight, using the same amount of steam that she uses when running light, she is kept back only 5 minutes in a run of 50 miles. She came across Lake Erie last fall from Put-in Bay to Bois Blanc light, headed into the wind, which was blowing at the rate of 25 to 35 miles an hour, and made her schedule time within 10 minutes.

Lake Freight Situation.

With wheat from Duluth to Buffalo paying 3½ cents there is some hope of fairly remunerative freight rates during the balance of the season, but no boom can be expected, as there is nothing to urge ore shipments any more than there has been during the past two months. The rate of ore from the head of Lake Superior has advanced to $1.10 in sympathy with grain, and an advance to 80 or 85 cents is expected from Esacnaba with the close of the week. Coal is still very scarce at Ohio ports, mainly on account of the strike in the Pittsburgh region, and rates are unchanged on a basis of 40 cents to the head of Lake Superior and 50 cents to Milwaukee.

Names on the Bows.

With the close of navigation it would be well for vessel masters to remember that a law passed by the last Congress demands that before January 1, 1892, the name of every documented vessel of the United States shall be marked upon each bow as well as the stern, and with a steam vessel the name must appear upon the pilot house also. Government officials on the lakes may not interfere in the matter of marking the names on the bows until navigation opens in the spring, but they have made no announcement of what they will do and the law says names shall appear on the bows of all vessels before Jan. 1 next. The name shall be painted, or carved or gilded, in Roman letters in a light color on a dark ground, or in a dark color on a light ground, and to be distinctly visible. The smallest letters used shall not be less in size than four inches. The penalty is $10 for each name omitted. Raised letters may be used.

Steam Whistles on Sailing Vessels.

A large number of tow barges on the lakes have small steam engines for handling sail and for general service in port. Some vessels that are required at odd times to care for themselves are also supplied with these small engines and they have whistles attached. The whistles are sometimes used to enable steamers to find consorts. It would be well for masters of these vessels to bear in mind that the recent decision of Judge Nelson of the United States district court, Boston, in which it is decreed that it is unlawful for a vessel under sail to sound a steam whistle in a fog, has particular reference to their case. The decision was brought out in a case where a steam vessel had come into collision with a vessel under sail, on account of the officers of the steamer being of the opinion that the sounds of a steam fog horn were heard from a steam vessel when they were in fact from the sailing vessel with which collision afterward occurred.

Complaint From the Sault Blockade—Detroit Matters.

Special Correspondence to the MARINE REVIEW.

DETROIT, Mich., Oct. 22—At this writing the passage of boats around the Peck in Lake George flats is progressing in the same painfully slow manner that has been going on since the passage was dredged a week ago. If no serious set-back is received the wreckers confidently expect to have the channel cleared by Saturday next. There is no denying the fact however, that the danger of a total blockade again taking place, is constantly present and vessel owners will not breathe easy until the obstruction is removed. In regard to the action of the United States officials in charge, several questions would seem pertinent. Many captains of vessels realize that the channel should have been cut round the Peck's stern instead of her bow. However this may be, the channel should not have been made with such a sharp turn that large boats unavoidably run aground in getting through. If it was necessary to cut the channel so close to the sunken boat, that passing vessels frequently strike and damage her bows, why could not some piles have been driven so as to protected the boat from further damage? The Aurora, which was perhaps as much responsible for this trouble as the Peck, after returning from Marquette was permitted to pass down out of her turn on the pretence that it was necessary to hurry her consort Adams to a shipyard for repairs. Fair play to other delayed vessels should have compelled the Aurora to await her turn. If the emergency was so great as to require the Adams immediate presence at a dry dock, plenty of tugs were available. How can the canal authorities expect masters to patiently wait their turn if such discrimination is used.

Those three precious lightships have finally been started for their respective stations. As they made the run from here to Port Huron in a little over twenty-four hours, it is hoped they will reach the Straits before the ice interferes with the voyage. A very moderate tow bill would have got them to their destination in thirty-six hours. I see that the secretary of the light-house board at Washington, in replying to some strictures sent out by the Associated Press, is quoted as saying. "The work upon these ships has been hurried faster than any similar work was ever hurried before. Usually we allow ten months for building a vessel of that character. This time only about four months was given the contractors." If I mistake not the contract for these boats was let April 15. They were delivered in Detroit Sept. 15, presumably in such an unfinished condition that five weeks time was required to get them ready. Over six month has therefore elapsed since these cheap affairs were contracted for. Lake vessel men will fail to see on what grounds Capt. Coffin's claims to extraordinary dispatch rests, when it is known that such boats could be built in sixty days at any of the big lake plants.

The new gate was towed up from Wyandotte, Tuesday, and will be put in place as soon as the remainder of the coffer dam is removed. The gate looked very much like one of McDougall's whalebacks as it was towed up to the dock.

The damage to the propeller Sachem will probably foot up $10,000. She is in the dock at Springwells, and will have to get a new bottom. At the upper yard during the week the Greyhound had a new cylinder put in by the Dry Dock Engine Works, and the propeller Hattie got a new wheel. The schooners Alice Richards, Oliver Mitchell and Watson were all docked for caulking.

Use the Rapids—Barley Movement.

Special Correspondence to the MARINE REVIEW.

KINGSTON. Ont., Oct. 22.—Not long since a blockade of grain barges, heavily laden, took place in the Cornwall canal, and it was some days before they could move forward. The delay which was caused by low water, resulted in considerable loss. Complaint was made to the government and it was requested that certain improvements be made so that there will be plenty of water at any season of the year. The reply to the request is to the effect that the government at a large expense, made a channel through the Galops' rapids, in which there is now fifteen feet of water,and stationed a tug and pilots at the head of the channel for use in cases of emergency. It is claimed that the forwarders should make use of this channel as it is perfectly safe to navigate, although the passage is a little more exciting than through the canals. A steamer and tow went through the channel in question a few days ago without the slightest difficulty. Furthermore, the reply says, the forwarders know that the water in the canal is very low, therefore they should not load their boats down as deep as they do when water is abundant. The case has therefor resolved into one of one throwing the blame on the other.

The veteran mariner Capt. Trowell died on Friday, aged seventy-seven years. He sailed for sixty-three years. He began off the coast of Cornwall England, and then shipped on the famous ocean vessel Erin-go-Bragh. Coming to Canada in 1833 he followed the water, and for fifteen years was captain of several of the mail steamers.

The weather remains very fine and is therefor most favorable for removing all the barley in this district enroute to England. Had the weather been boisterous as usual at this time of the year much of the grain would have to be carried on the railways, as in many places it is late in getting into the barn. It seems as if Providence too, is favoring the government's experiment with two rowed barley and opposing the McKinley bill. The latter however, is injuring the ship-chandlers business here. Years ago Kingston chandlers rigged many American bottoms. Now they are doing well if they get decent repairs to do for that class of boats. But the chandlers are getting business from other sources. They make tents, awnings etc., which find their way all over the province.

The probabilities are that the new dry dock will not be used this season. Some little work yet remains to be done, and thus far the government has not appointed officers to run the dock.

Thos. Paddon ex-president of the Seaman's union which existed here some years ago, had a quarrel with J. Lindsay, when the latter struck him. Paddn went away and securing a revolver returned and fired two shots at Lindsay, one of which entered his shoulder. Paddon is now in jail.

Official Numbers and Tonnage.

The bureau of navigation, W. W. Bates commissioner, assigned official numbers to the following lake vessels during the week ending Oct. 17: Sail—The Brick, Grand Haven, 53.62 tons gross, 53.62 net, No. 145,603; Guest, Toledo, 11.31 tons gross, 10.65 net, No, 86,182; Flotilla, Milwaukee, 12.06 tons gross, 11.46 net, No. 120,873; F. Fitch, Grand Haven, 13.05 tons gross, 12.40 net, No. 120,872; Dauntless, Chicago, 8.79 tons gross, 8.52 net, No. 157,329; Burton, Grand Haven, 16.93 tons gross, 16.13 net, No. 3,527.

CHICAGO LAKE INTERESTS.

WESTERN OFFICE, MARINE REVIEW,
No. 210 So. Water Street, CHICAGO, Ill., Oct. 22.

What November will bring in the way of grain freights is generally considered an enigma by vesselmen here. As no one foresaw the crash, so it is said no one can foretell business for next month. Some think that the great wheat crop must begin to move in larger volume, and that in this way plenty of traffic is to be had. Conservative shippers state, however, that little can be expected of wheat. There may be lots of it this fall, but the chances are against it. Corn is the back bone. If the new crop begins to go forward, it will give boats their cargoes. No one can at this stage say much about the new corn. Of flaxseed, rye and barley considerable quantity is being shipped, but these grains are only sweeteners. It depends mainly on new corn, with wheat an uncertain factor in the background. All this may be too indefinite to suit vesselowners, but it seems just about the present outlook, judging from many talks with both shippers and vesselmen.

There is a feeling of strong resentment among marine men about the course of the Fort Wayne Railroad Company in demanding the prosecution of Capt. Valentine Jones of the steamer Hudson, on the charge that he delayed the United States mails by his boat being held for several hours in the Fort Wayne railroad bridge. It has been on the vague program of the river interest that as soon as the Canal street bridge question had gone into the courts that formal complaint would be filed with the secretary of war against this railroad bridge as an unreasonable obstruction to navigation. It was believed that a good case could be made out and a modification of the bridge forced. The railroad company is at fault for every delay its trains experience at this bridge. It has sold the land on each side for coal docks, and when boats are unloading at them and one is at the elevator on the other side navigation is doubly blocked. The bridge is in the bend of the river which makes it still worse. Of course, the railroad officials were but bluffiing in asking the United States district attorney to begin criminal action against Capt. Jones. It was only a sample of railway bulldozing. In the end the result will be to hasten the day when these same railway officials must come before the United States engineer, not to seek to send a lake captain to the penitentiary, but to defend their bridge, the cause of all the trouble. Complaint is certain to be lodged with the war department within a few days, but in what shape has not yet been determined.

The REVIEW has taken the right stand in advocating some regulation of the movement of boats on the Soo river. It has got to come.

In Chicago river there are many canal boats carrying stone from the canal to docks along the river. They are mostly old and tender. The ordinary rubbing of boats in that crooked and narrow channel will send an old canal boat to the bottom. Then the lake vessels are called upon to pay the loss. If a canal boat is lucky and gets rubbed often enough, she becomes almost as good as new without expense to their owners. They go up and down the river in tows at full speed, looking for all the world as they twist around like links of bologna. When the river is crowded, a basket of eggs at a prize fight is as safe as they are. Let it be recorded with joy that the two canal boats that collided in trying to get around the steamer Clyde while going at full tilt had to divide the damage, and for once Judge Blodgett did not make the lake steamer pay the bill. He was not lenient with the steamer Snook, whose owners were assessed some $5,000 for sinking a canal boat three years ago. If the United States district judge had watched canal boats on Chicago river for several years and seen the recklessness with which they are run, he might give the lake boats a better show when these collision cases come before him. It does seem that admiralty ought to be warped a little, in some instances.

No one who has not been in the marine business or associated with it, can comprehend the almost human affection entertained for old boats. No other property is like them in this respect, unless it is an engineer's love for his iron horse. I remember once when an old-time mariner said to me: "For God's sake don't say the old boat went to pieces because she was rotton. I know she was, but it would hurt my feelings to see it in print." When the news comes that some old time vessel has been lost, although all hands may have been saved, it is a great deal more than the destruction of so much property. To those who have known, dealt with, and perhaps sailed the departed craft, it is a personal affair, very like the burning of the old homestead. This the oldtimers felt when they heard that the schooner Lottie Wolf had gone to pieces on Hope island, in Georgian Bay.

There has been some discussion here with many articles in the newspapers about low water. It grew out of the publication of a plan for raising the level of the lakes by obstructing the outflow in Niagara river by a partial dam. One good result has come iu calling public attention to the necessity for more water on the lakes, and thereby paved the way for the deep waterways convention. Capt. J. S. Dunham was considerably put out by the premature publication of the plan, before he was certain of his ground. Since then he has quietly pursued his investigations that the winds have more to do with the stage of water than generally conceded —that is the prevalence of winds in one direction for the season. Engineers who state that the lake level is dependent solely on the rainfall have omitted some important factors.

Two or three good-sized passenger steamboat schemes are on foot, but they have not yet matured. One is of large dimensions and includes a summer hotel and two medium sized passenger steamers. Some ambitious people at St. Joe are figuring on an opposition line to Graham & Morton's, but they do not yet know what they want beyond "opposition." Then there are others which have got no further than a general agreement that they would be good things. Out of the scheming some good passenger boats will come. Shipbuilders looking for contracts will do well to keep their eye on Chicago.

Will Buffalo papers never learn that some marine underwriting is done in Chicago? Their oracular utterances when insurance questions come up causes one to think that they believe the temple of lake insurance is located in Buffalo, and that the other fellows are not of the anointed.

The palatial residences, Chicago vessel agents were looking over during the late lamented boom in grain freights are still for sale. Modest homes on the more quiet streets are now greatly in favor.

Lake Superior Grain Trade.

Special Correspondence to the MARINE REVIEW.

DULUTH, Minn., Oct. 22.—The wheat traffic of Duluth last week was smaller than for any week since the first of September. Receipts were cut down by the long period of wet weather in the northwest and which did a great deal of damage to unthreshed grain. The wet weather has now, it is hoped, appeased and receipts are coming in at a greater rate. On Monday there were 1,169 cars on track, the largest number by sixty-four this year and in the record of the Duluth grain trade. This means that the elevators will take in about 700,000 bushels and that the receipts for the week will go above 2,000,000 bushels. The record of receipts and shipments last week was as follows:

	Receipts.	Shipments.
Monday	446,391	163,890
Tuesday	288,107	337,183
Wednesday	214,475	253,457
Thursday	226,419	273,472
Friday	199,117	17,469
Saturday	213,145	11,358
Total	1,587,663	1,056,829
Same week last year	720,864	427,277

Wheat in store Monday was 1,825,000 bushels, an increase for the week of 450,000 bushels. With a scarcity of tonnage this week and increased receipts there ought to be quite a large increase for the week.

A Scheme of Some Merit.

EDITOR MARINE REVIEW: In an article in the REVIEW recently you seem to think that there is no danger of destruction to lake navigation on account of the lowering of the water in the lakes. After living at Mackinac island and St. Ignace, near the Straits of Mackinac, for thirty-six years my observation is, however, that there is great danger of destruction to navigation on this account. Up to about ten years ago the water of the lakes lowered and raised again to its normal height about every six or seven years, but for the ten years just past it has been lowering steadily and has not raised at all. It is now about 3 feet lower than it was ten years ago at St. Ignace. During my residence near the Straits of Mackinac I have been a sailor, a fisherman and a light-house keeper, in all of which callings I have had to take notice of the rise and fall of the waters of the lake.

The only remedy and the one the government will have to adopt sooner or later is this: The St. Clair river at its head where Lake Huron enters into it is 800 feet wide and 60 feet deep, and an immense volume of water is continually leaving Lake Huron at this point. Now let the government construct at this point a cut-stone sill of very heavy stones and build it up from the bottom of the river to within 25 feet of the surface. The depth of water over the sill will still be great enough to float the largest lake vessels, while the decrease in the outflow from Lakes Huron and Michigan will be fully one-half. The same method adopted where Lake Superior enters the Sault river and where Lake Erie enters the Niagara river, will raise the waters of these lakes also.

Capt. J. S. Dunham of Chicago recommends the filling up of Niagara river near Tonawanda with large stones. Such a plan might raise the water in Lake Erie but it would not raise it in Lakes Huron, Michigan or Superior.

St. Ignace, Mich. P. MCCANN.

During the month of September there were 55,580,000 feet of lumber, 14,112,000 shingles and 2,450,000 pieces of lath shipped from the Saginaw river. This is a considerable increase over the shipments for the same period for the two previous years. A lively time is expected for the balance of the season as the docks are now well filled with lumber and eastern markets will be filling up with stock for the winter's trade. Another rise in freights is anticipated within a few days.

Record of Speed and Big Cargoes.

[*Masters or owners are invited to report improvement on this list.*]

Iron ore: Lake Michigan—Maryland, Inter-Ocean Transportation Company, of Milwaukee, 3,322 gross, or 3,737 net tons, Escanaba to South Chicago, draft 16 feet 6 inches; E. C. Pope, Dry Dock Navigation Company of Detroit, 3,221 gross, or 3,608 net tons, Escanaba to Ashtabula, draft about 16 feet. Lake Superior—E. C. Pope, Dry Dock Navigation Company, of Detroit, 2,828 gross, or 3,167 net tons, Ashland to Lake Erie, draft 14 feet 6 inches.

Grain: E. C. Pope, Dry Dock Navigation Company of Detroit, 125,730 bushels of corn, draft 14 feet 8 inches; Western Reserve, Peter Minch, of Cleveland, 112,431 bushels of wheat, Chicago to Buffalo; W. H. Gilcher, J. C. Gilchrist, of Cleveland. 114,982 bushels of corn, Chicago to Buffalo.

Speed: Owego, Union Line, of Buffalo, Buffalo to Chicago, 889 miles, 54 hours and 16 minutes, 16.4 miles an hour; Saranac, Lehigh Valley Line, of Buffalo, Buffalo to Lime-Kilns, 240 miles, 15 hours and 10 minutes, 16 miles an hour.

Iron Mining.

VALUE OF LEADING STOCKS.

Quoted by Chas. H. Potter & Co., No. 104 Superior St.

Stocks.	Par Value.	Bid.	Asked.
Cleveland-Cliffs Iron Company	$100 00	$.....	$ 82 50
Champion Iron Company	25 00	.....	77 50
Chandler Iron Company	25 00	37 00	40 00
Chicago and Minnesota Ore Company	100 00	.....	100 00
Jackson Iron Company	25 00	.....	110 00
Lake Superior Iron Company	25 00	57 50	.....
Minnesota Iron Company	100 00	80 00	83 00
Pittsburg Lake Angeline Iron Co	25 00	.....	.....
Republic Iron Company	25 00	25 00	27 00
Ashland	25 00	.....	.....
Section Thirty-three	25 00	.....	.....
Brotherton	25 00	2 00	2 50

Owners of mining stocks are not expecting a great deal in the way of dividends this fall, on account of the low prices at which ore was sold and the general disposition on the part of the big companies to strengthen their operations through increased ownership in vessel property and terminal facilities. This is especially noticeable with the Lake Superior and Cleveland-Cliffs companies, both of which are pushing their way to the front with undertakings equalling the broad policy under which the big Minnesota company has been operated during the past few years. In the market for stocks there is very little doing and prices show no important changes. Some interest is shown among investors in reports from the Mesaba range, where a great deal of development work has been going on for some time past. The Merritts, mining men who are well known in the Lake Superior region, have uncovered immense quantities of ore on the west end of the Mesaba and there seems to be little doubt that they will soon get railway facilities for shipping purposes. It will be necessary to build only 60 miles of road from the ore deposits to the nearest railway in order to get the ore into West Superior and present plans contemplate making that place a shipping port.

Shipments of the Gogebic range mines from Ashland on Oct. 14 (these mines are also shipping from Escanaba and by rail) were as follows: Ashland 228,475 tons, Aurora 75,854, Tilden, No. 2, 5,221, Tilden 23,194, Montreal, south vein 53,119, Palms 30,687, Section 33, Bessemer 36,738, Carey 83,851, Trezona 15,759, Germania 22,382, Iron Belt 1,506, Mount Hope 89,162, Norrie 235,395, East Norrie 100,814, Comet 8,050, Federal 929, Eureka 12,752, Pabst 82,983, Ruby 913, Sunday Lake 52,225, total 1,160,064 tons. On the same date the Ludington mine had shipped from Gladstone 116,164 tons and the Hamilton 46,065 tons. The output of the Vermillion range, also computed to the 14th inst., included 454,433 tons from the Minnesota mine, 313,969 tons from the Chandler and 1,554 tons from the Pioneer. Shipments from Ashland during the past few weeks have been very light and the total of 1,160,064 tons is 721,430 tons less than the shipments on the corresponding date in 1890.

Two features of the lease which the Cleveland-Cliffs company offers in connection with the plan of developing its mineral lands have caused some unfavorable comment. The lease provides that the Cleveland-Cliffs company shall act as sales agent for the ore produced and also direct over which line of railway the ore shall be shipped from the mines. The aim of both provisions is evidently in accord with the general tendency toward consolidating mining interests. In controlling the sale of increased quantities of ore the company adds to its leverage on the market, and in directing shipments of the ore to lake ports its influence in favor of low rail freights is increased.

It was announced a short time ago that Mr. T. F. Cole, manager of the Schlesinger mines, would take charge of the Chapin mine and all preparations had been made at the Chapin for the change, but Mr. Cole is held by a contract and other relations regarding which he has since had an understanding with the Schlesinger syndicate, and he has been compelled to resign the superintendency of the Chapin which he had accepted. Vice-President W. H. Kent of the Chapin will assume its management and Assistant Superintendent McNaughtin will return to act as assistant to Mr. Kent.

The Commonwealth company will certainly produce 135,000 tons from all its workings this season, and it is estimated by the Norway Current that next season's product from the Badger alone will be 200,000. This is the new property, which, although not opened up until late this season has shipped 50,000 tons and is mining about 1,000 tons a day. The ore from the new mine runs 60 per cent. in iron.

The Iron Trade Review calls attention to a grave error in the annual report of the Michigan commissioner of mineral statistics. It is claimed that the report gives 2,800,000 tons as the amount of iron ore imported into the United States in 1890 when in fact the importations were not half that amount.

Taylor & Sangster, E. E. Strothman and J. T. Turnbull are Superior parties who are trying to interest capital in the development of Canadian lands on the north shore of Lake Superior, said to contain lead, silver and iron ores.

While recently exploring in an old tunnel of the Geneva mine a chimney of ore was struck near the surface. Further work developed the knowledge of the existence of a body of ore. It is probable that the mine will be reopened and wrought.

Marked Changes in the Ore Trade.

Official announcement has been made by the Lake Superior Iron Company of a contemplated increase in its capital stock for the building of two more steel boats, and at a meeting of stockholders for which a call has been issued, the matter of acquiring docks on Lake Erie will also be considered. The Minnesota company will build additional shipping docks at Two Harbors, Lake Superior, and the improvements of the Lake Shore railway company at Ashtabula Harbor, Lake Erie, together with operations of a similar nature but on a smaller scale, at other places, gives assurance of a sufficiency of dock space for the accommodation of increased business. These improvements show that the development of another season will mark some important changes in the ore trade. Competition among dock companies and other conditions of equal importance will result in the great bulk of the ore being handled by what are now termed "flyers" in the trade, boats that are unloaded in a single day and are handled between shipping and receiving ports with clock-work regularity. Some of the large carriers owned outside of the mining companies will undoubtedly share in this rapid work, for the coming season at least, as the dock competition will enable ore shippers to make contracts covering similar dispatch from these vessels. In line with this policy it is evident also that there will be a tendency toward larger boats in the trade.

Heavy Production of Pig Iron.

Although hope for improvement in the iron market is still expressed on all hands, the main conditions are heavy production and low prices on pig iron with some accumulation. As compared with a year ago the make of pig iron, according to the Oct. 1 report of the American Manufacturer, is 5,000 tons a week more, and thus far during the last six months of 1891 the production has been greater than during the corresponding months of 1890, when the output was the greatest in the history of the country. The weekly rate of production on Oct. 1 was the largest with one exception, April 1890, ever known.

MARINE REVIEW.

DEVOTED TO THE LAKE MARINE AND KINDRED INTERESTS.

JOHN M. MULROONEY, ... } PROPRIETORS.
F. M. BARTON, ... }

HOMER J. CARR, - - - Associate Editor and Manager Chicago Office, 210 South Water Street.

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Annual tonnage entries and clearances of the great seaports of the world, for 1889: New York, 11,051,236 tons; all seaports in the United States, 26,983,315 tons; Liverpool, 14,175,200 tons; London, 19,245,417 tons.

Tonnage passing through Detroit river during 234 days of navigation in 1889, amounted to **36,203,606** *tons. Ten million tons more than the entries and clearances of all the seaports in the United States, and three million tons more than the combined foreign and coastwise shipping of Liverpool and London.*

St. Mary's Falls and Suez canal traffic: Number of boats through St. Mary's Falls canal in 1890, 234 days of navigation, 10,557; tonnage, net registered, 8,454,435. Number of boats through Suez canal during 1890, full year, 3,389; tonnage, net registered, 6,890,014.

Entered at Cleveland Post Office as Second-class Mail Matter.

A SHORT time ago the REVIEW suggested that while the state department is giving attention to that part of the treaty of Washington which is being violated by Canada in the matter of Welland canal tolls, it would be well also to consider a feature of the treaty of 1817, which, according to the recent ruling by Washington authorities, prohibits the building of war vessels of any kind on the lakes. This leads some of our Canadian neighbors to ask, "Does the REVIEW want the treaty set aside so that American war ships may be kept on the lakes as a standing menace to Canada? Not at all. The vessel owners of the lakes could not ask for more friendly relations than they now enjoy with the people of the Dominion as well as its officers in the marine and other departments. Neither do they take any stock in the stories of Canada strengthening her defenses on the lakes, or of American lake cities being exposed to the danger of British war ships coming up the St. Lawrence canals in event of hostilities. They are well acquainted with the dimensions of these canals and know how readily preparations might be made to cope with such vessels from the British navy as might navigate them. The lakes have shipbuilding plants, however, that are the finest in the country, and it does not seem reasonable that a treaty made nearly a century ago should now stand in the way of a still further development of this industry in the building of war ships.

IN two admiralty decisions recently handed down by Judge Brown of the United States district court, New York, the findings of the court were based on the regulations governing the right of way, duty of ascending vessel and other rules pertaining to navigation of the channel of Hell Gate. When will the vessel owners of the lakes proceed in proper manner toward securing regulation for the navigation of the treacherous and narrow channels between Lake Superior and the mouth of the Detroit river? Certainly the money spent in constructing the Lime-Kilns' cut and in deepening other parts of the Detroit and St. Clair rivers has made these channels as important as any of the waterways of the world. The collisions of the present season, which have resulted in corking up Lake Superior, and may any day result in still more serious accidents, have made these same waterways the most notorious in the world for the loss of shipping and the actual loss of vessel property that has occurred in them. The time has arrived for action in this matter.

IT is now proposed to materially increase the width of the Canadian canal lock at Sault Ste. Marie. The Canadian goverament made a wise move in changing the plans so as to give a depth of 19 feet in this canal and the proposition to increase its width is not beyond the demands of Lake Superior commerce. Unfortunately for the Dominion, $40,000,000 has been spent on the Welland and St. Lawrence canals, while $14,500,000 more will be required before the contemplated work is completed, and this for a system of waterways that is entirely inadequate in dimensions for the demands of commerce.

FAIRPLAY and other leading maritime publications of England are calling upon the British and American authorities to put a stop to the business of towing big rafts of logs on the Atlantic or at least take some steps toward regulating the business. It is proposed now to send a big raft from Galveston, Tex. to London, and the commerce of the Atlantic is to be subjected to the danger of floating timber if the raft goes to pieces, which seems almost certain when the length of the voyage is considered.

Two Revenue Cutters for the Lakes.

When an attempt was made in the last Congress to replace the old revenue cutter Andy Johnson, in service on Lake Michigan, with a new boat of modern construction, the appropriation requested—$90,000—was objected to by certain members of the Senate, on the ground that it was not large enough to provide the kind of boat desired. It is now claimed that the officers of the revenue marine are also in favor of having the boats that are to take the place of the Bibb and Andy Johnson so constructed that they may be made effective for war purposes.

Congress will be asked this winter to build two modern type revenue cutters for the lakes, suitable for war purposes. They will be very useful meantime for instructing the naval reserve. The dimensions proposed are 23 to 24 feet beam, 196 feet keel and 10 feet draught with flush deck fore and aft and with nothing on the spar deck except the pilot house and an overhead bridge. The battery will be Hotchkiss rapid fire guns. There will be two sets of triple expansion engines. The boat will have a steaming radius of 3,000 miles at 10 knots per hour and a guaranteed maximum speed of 16 knots.

The Question of Dams.

With vessel owners who know that the water level of the lakes varies as precipitation is great or small, little attention is given to the stories of the lakes being gradually drained of their contents. The records of water levels, kept with the greatest care and platted by government engineers for a long period of years past, has established the correctness of this theory in the opinion of those who are most concerned with as much force as has been exerted by experience with channel improvements in proving the fallacy of the charge that deeper channels are the cause of low water, or in other words they have helped to drain the lakes. Capt. Dunham of Chicago has made a suggestion, however, which revives interest in the question of gaining increased water through dams. Principles in engineering may show conclusively that any plan of damming the Niagara river would result disastrously without giving any benefit to commerce through increased depth of water in shallow places, but Capt. Dunham has made such a proposition and it has caused vessel owners to begin a discussion. It is agreed, of course, that a dam below Tonawanda, or further up the river, which would seem better, where it would not be necessary to overcome the great fall, would not affect any of the lakes excepting Lake Erie, as there is a fall of 326.3 feet between Lake Ontario and Lake Erie, 8.4 feet between Lake Erie and Lakes Huron and Michigan and 20.5 feet between Lakes Huron and Michigan and Lake Superior. A canal would also be required around such a dam, but at a point below Buffalo the demands of commerce would not be great in this regard, and if the scheme is practical it is certain that the cost of construction would be more than offset by the expense of deepening and maintaining present channels on Lake Erie alone. The question is being discussed even to the extent of damming up the Lake Huron entrance to the St. Clair river, and it is to be hoped that opinions of value will be brought out from some of the engineers.

Pridgeon-Chamberlain Case Settled at $44,000.

The Vermont Central Railway Company has paid the Bradley estate $44,000 in settlement of the loss of the steamer Selah Chamberlain, which was sunk off Sheboygan, Wis., in October, 1886, through collision in a fog with the steamer John Pridgeon, Jr. The Pridgeon was owned by John Pridgeon of Detroit but was under lease to the Vermont Central and was running in its Chicago-Ogdensburg line when the collision occurred. The Chamberlain was in command of Capt. Greenley when sunk. Five of the crew were lost by the capsizing of one of the small boats after the accident. Capt. George Stone spent some time later in an attempt to raise the boat but the water in which she went down was too deep for successful wrecking work. Harvey D. Goulder of Cleveland represented the Chamberlain and C. E. Kremer of Chicago the Pridgeon in the legal proceedings that followed the collision. Judge Blodgett in the United States district court at Chicago gave the Chamberlain a full decree, mainly on evidence showing that the Pridgeon was running at a high rate of speed in a fog, and the decision was sustained by the United States circuit court. It was thought that the case would be carried to the supreme court, but the appointment of Judge Blodgett to the new appelate court probably hastened the settlement, as decisions of the new court are final in admiralty cases. Recourse to the privilege of limiting liability on the part of the representatives of the Pridgeon caused a settlement at less than the value of the Chamberlain. This is the only case in the history of the lakes, and the second one in the United States, where a steamer got a full decree in an accident happening in a fog.

Claims to Have Beaten the Owego.

Capt. MacFarlane of the Lehigh Valley steamer Tuscarora claims to have beaten the Union liner Owego four miles in the run from Port Huron to Buffalo. The Tuscarora was making ninety-two turns. The Owego has been recognized as the crack freight boat of the lakes, having made the run last season between Buffalo and Chicago, 889 miles, in 54 hours and 16 minutes, or at the rate of 16.4 miles an hour. Her power is much greater than that of the Tuscarora, although the engines of the latter, judging from what is known of their performance, must have been developing about 2,200 horse power at ninety-two turns. Both the Owego and her sister ship Chemung are known to have developed more than 2,600 horse power. The Lehigh boats have been running at moderate speed under orders ever since they came out. A great deal of credit for the Tuscarora's speed is given to her Worthington independent condenser.

In General.

Capt. McDougall is in New York and is said to be making arrangements with officers of the barge company to begin at West Superior this winter the construction of the dry dock, about which so much has been said.

It is expected that the whaleback steamer Charles W. Wetmore will touch at Montevideo, Uruguay, during the present week. At that point she will receive an 18-word cablegram which was sent via. London and cost $42, telling her to report at Valparaiso, Chili, and report progress.

For the first time in two years the report from the commissioner of navigation for the week ending Oct. 10, of vessels to which official numbers and signal letters have been assigned, contains not a single vessel built on the lakes. This is evidence of dull times in the shipyards during the summer.

Mr. M. H. Taylor, who has been actively connected for years past with the lake coal business of the late William Scott of Erie, is appointed managing executor for the coal, mining and railroad properties of the estate and is to receive an annual salary of $50,000. The estate is valued at from $20,000,000 to $25.000,000.

Harrison, Loring & Co. Boston shipbuilders, assigned last week. The company is building a number of steel tugs for the government and a cruiser, the contract price of which is $674,000, and the failure is attributed to the red tape attending payments on the contracts. It is expected that an extension will be granted by creditors and that all indebtedness will be paid in full.

Wrecks and Heavy Losses.

The small steamer Daisy Day, worth about $3,000, went to pieces at Little Point Sable Sunday. The boat was owned by Banker Neilson of Pentwater.

At Muskegon Tuesday, the tug Kingsbury, owned by Crosby & Co. and valued at $3,000, took fire and had to be beached. Her machinery will probably be put into a new hull.

The schooner Wayne, consort of the steamer Whitney, was ashore on Raspberry island, one of the Apostle group, Lake Superior, last week. Some of her coal had to be lightered.

Capt. D. B Millen of Detroit, owner of the barge William Young, which foundered in the Straits a short time ago, had $3,000 insurance on her. She had a cargo of about 600 tons of coal.

Fire destroyed the steamer Oscar Townsend on Lake Huron Wednesday. She was owned by J. Root of Tecumseh, Mich., and valued at $40,000. The crew escaped on her consort, the Kelley.

Capt. J. S. Dunham's schooner Lottie Wolf, stranded on Hope island, Georgian bay, has been stripped and abandoned and will go to pieces. She was valued at $5,500 and had a cargo of 21,000 bushels of corn.

In releasing the schooner Queen City from the Canadian shore near the "Dummy," Lake Erie, with only a few day's work Capt. C. E. Benham of Cleveland did a good job of wrecking last week. A channel 1,000 feet long had to be dredged to the stranded boat by working the wheels of the tugs engaged on the work.

Just below Smith's coal dock, Detroit river, and on the Canadian bank, the Anchor Line steamer Conemaugh lies sunk as the result of a collision with the New York of the Union Line. The tow of the steamer Burlington rounding up to the coal dock and probably a misunderstanding of signals were causes of the collision. The Conemaugh is valued at 80,000 and has 1,850 tons of flour and other merchandise.

Collector of Customs Gott of Amherstburg, acting under instructions from the Canadian department of customs, has contracted with Capt. John Quinn of Detroit for the removal of the wreck of the barge Birckhead from the lower entrance to the Lime-Kilns' cut. The sunken hull will be blown up with dynamite. Both the collector and the department officers at Ottowa are deserving of an expression of gratitude from the vessel owners of the lakes for taking prompt measures for the removal of this obstruction to navigation.

Notices to Mariners.

By authority of the light-house board Commander Nicoll Ludlow of Chicago gives notice that the black spar buoy off the entrance to St. Joseph, Mich., has been replaced. The St. Joseph pierhead range light (red) will be removed.

Commander Ludlow also gives notice that the gale of the 19th inst. made a dangerous shoal, on which there is but 8 feet of water, at the entrance to the harbor at St. Joseph, Mich. In entering keep south of the black buoy, on a line with the north edge of the south pier.

Cleveland Matters.

Mr. C. H. Tucker, general agent representing the Northern Steamship Company in Cleveland, announces that the last boat of that line for the season, westbound, will leave Cleveland on or about Nov. 20.

Mr. Ashley of the New York and Cleveland Gas Coal Company says that the use of the Ludlow trip with the coal bucket of that name effectually prevents the dumping of coal all the way from 10 to 25 feet from the bottom of the hold. Derrick engineers being paid by the ton have no interest in lowering the bucket below the hatches.

Mr. M. A. Bradley will sue the Northern Steamship Company for the loss of the schooner Fayette Brown, sunk in collision with one of the Northern Company's steamers near the "Dummy," Lake Erie, a short time ago. It was thought that a settlement would be made without resorting to legal action. Capt. F. B. Hackett of Amherstburg has removed some of the rigging and will cut out the spars from the sunken boat. This work is understood to be under the direction of the Canadian government, as the wreck is a source of danger to navigation.

Suggestions From Some Masters.

Since the Cleveland Vessel Owners' Association a short time ago published a list of aids to navigation that will be requested of Congress during the winter, some of the vessel masters have, according to the request made of them, submitted suggestions regarding lights, fog signals, etc., and their practical knowledge of what is needed will serve to assist the vessel owners who are seeking these improvements.

Capt. J. D. Peterson of the steamer J. C. Lockwood says: "I would suggest that the light at Whitefish point, Lake Superior, be changed from a fixed light to a red and white flash. Whitefish is a very important light and one should be able to distinguish it from any other light the moment it is seen. Many of our modern steamers now have electric masthead lights and in meeting these steamers near Whitefish it is sometimes hard to distinguish one from the other. And again in snow squalls, or any hazy weather it is very important that the master should be able to distinguish the light the moment he sees it. As it is now it is sometimes hard to do this. A light on Vermillion point would also be of much benefit to masters."

"I hope every one of the lights and fog signals asked for will be secured," says Capt. William E. Clarke of Buffalo "but would like to recommend a change if it be in order. In the list a light on the north end of North Manitou island is recommended but I think the light should be on the southeast end of the island, as fully 99 per cent. of the tonnage going from the Straits to the head of Lake Michigan use the south passage. I think you will find that this will meet with the approval of masters of boats who have gone that way. In coming from the Straits, if the weather is not perfectly clear, (and there has been few clear days this summer) it is very difficult to tell when we are just right, and South Manitou light can not always be seen far enough."

Capt. James Parsons of the steamer Hebard calls attention to the fact that the purchase of the Portage lake canals by the government will soon result in a large increase in traffic through these canals, and Traverse island near the eastern entrance to these waterways should have a light and fog signal.

Capt. William Nicholson of the steamer Boscobel writes of the urgent need of a life-saving station at Death's Door, entrance to Green bay. He favors Plum island as a location for the station.

These suggestions have all been acknowledged with thanks to the masters making them for interest shown in the general improvement of aids to navigation. They will all receive the consideration due them.

Charles H. Cramp's Opinion of the Whalebacks.

Charles H. Cramp said a few days ago to a Philadelphia Record reporter: "I feel very much impressed with the ideas that have been developed in the type of vessel called the whaleback, though they are not original. From the reports she has done well so far. We would be able to build a vessel of similar type, and, taking her carrying capacity into consideration, I think we could build it cheaper. Not having seen the Wetmore I prefer not to express an opinion at this time as to the comparative cost of construction and operation as between vessels of that type and other freight steamers. The whaleback is best adapted for freight carrying purposes, because of the facilities for the seas to break over it. I have always contended that the upper deck should be clear and unincumbered by houses or cabins, thereby permitting the waves to pass over unobstructed and without doing any damage to the vessel. That peculiar construction will admit of a vessel being loaded to a deeper draught, and the question of freeboard is not of much moment." Speaking of the possible improvement to vessels of the whaleback type, Mr. Cramp says: "In view of the possibility of an accident to the engine, I would furnish the vessel with twin screws, and build her considerably larger. With but a single screw, an accident depriving the vessel of its use would leave it at the mercy of the seas."

Saginaw's Trade in Canadian Logs.

There is some question as to whether Canada has or has not been benefited by that portion of the McKinley bill which reduced the tariff on Canadian lumber imported into the Uuited States in return for a repeal of the Canadian export duty but it is certain that the effect of the clause referred to in the bill has been to build up, even during the present season, an immense business in Canadian logs on Lake Huron. During the rafting season now at an end there was rafted from Canada to the United States side of the lakes 80,000,000 feet of logs, as against 30,000,000 feet during the previous year when Canada demanded an export duty. The great bulk of these logs was rafted by the Michigan Log Towing Company, a coporation owning large tug boats and made up of stockholders controlling the Saginaw Lumber and Salt Company and the Emery Lumber Company. The latter companies own together about 140,000 acres of stumpage in Canada's Georgian bay district and have big saw mill interests at Saginaw on the American side, where they manufacture close to 50,000,000 feet of lumber annually. Hon. R. A. Loveland of Saginaw is a leading manager in the affairs of both of these companies. They expect to cut about 60,000 feet of logs in the Georgian bay district during the coming winter.

Some Canadian owners of saw mills, who believe that they would find more active employment for their mills if no logs were rafted across the lakes, are clamoring for a reimposition of the export duty, but it is not probable that the Dominion government will again change matters. The Canadian lumber industry has not been very active this year, and a reimposition of the log duty would at once add the $1 a thousand duty on 600,000,000 feet or more of manufactured lumber which Canada annually markets in the United States

Proposed Systematic Arrangement of Lights.

A more systematic arrangement of the lights of the light-house establishment is now under consideration by the light-house board at Washington. The plan under consideration, which has been submitted by Capt. F. A. Mahan, engineer secretary of the board, proposes that in order that there may be no doubt as to whether a light is that of a lighthouse, all fixed lights be eliminated from the system and none but flashing lights be admitted Further, in order to distinguish offshore from inshore lights, it is proposed to eliminate all red elements from the offshore lights and to make at least one red element a distinguishing feature of of the inshore light.

The board has also decided to recommend to Congress through the secretary of the treasury that the candle power for white masthead lights for merchant vessels shall be thirty candle power, and for the green and red side lights of merchant vessels of forty candle power, so that the white light shall be clearly visible a distance of 5 nautical miles, and the colored 2 miles. It is desired in this way to establish uniform minimum power of running light for merchant vessels, which has not been the case heretofore.

Collision Between Sailing Vessels.

A recent decision from Judge Benedict of New York deals with a collision that occurrsd on the high seas, on a clear morning, between the ship Rolph and the bark Boyd. The Rolph, bound from Havre to Sandy Hook, was sailing at least two points free, with the wind on her starboard side. The Boyd, bound out of New York, had the wind on her port side. Her contention was that she was sailing close-hauled. The Rolph's witnesses testified that the Boyd also was sailing free. The Boyd did not alter her course. The Rolph put her helm up after collision was inevitable, but was struck on her starboard side. The court held on the evidence that the Boyd, as well as the Rolph, was sailing free, and hence under the collision rules, the Boyd was bound to avoid the Rolph, which had the wind on her starboard side, and was liable for her failure to do so.

The MARINE REVIEW and the MARINE ENGINEER, London, one year for $4. Write the MARINE REVIEW.

Around the Lakes.

Grummond's wrecking tug Swain was stationed at the Sault last week and will remain at that point until the close of navigation. She is well equipped and is commanded by Capt. Ed. Tormey.

Complaint is made that piles driven by the wreckers around the sunken steamer Kasota, before she was removed from the channel above Smith's coal dock, Detroit river, ought to be taken out.

Commander Ludlow is engaged in placing the light-ships at their stations in the Straits. The keepers will be Simon Huntoon at Gray's reef, James N. Riley at Simmon's reef and Orlando J. Parker at White shoal.

Wolf & Davidson of Milwaukee are building a tug for C. H. Starke & Co. The boat will be a little larger than the Milwaukee, with the same power. The Sheriffs Manufacturing Company is building the engine, and Davis Bros. the boiler.

A raft of logs containing 3,000,000 feet and bound from Ontonagon to Baraga, went to pieces off Misery bay a few days ago, and the logs are now scattered along that portion of Lake Superior. The loss to the Nester estate, owning the logs will be in the neighborhood of $40,000.

The Chicago board of marine underwriters announce the following insurance rates on grain per $100 for the second half of October: To Lake Michigan ports 70 cents, Lake Superior, Lake Ontario and Ogdensburg 90 cents, Lake Huron, Sarnia, Detroit river 75 cents, Lake Erie, Georgian Bay 80 cents, Montreal $1.05.

The entire fleet of nine of the Lake Superior Transit Company's steamers was detained at the Sault by the blockade. Never in its history has that line suffered so unlucky a season as this. Of the fleet the China, Japan, Idaho, Empire State, Badger State and Winslow have all suffered serious mishaps, the latter being a total loss.

It is said that Parker & Millen of Detroit will get $13,500 for raising the sunken steamer Susan E. Peck, which has caused so much trouble below the Sault. A story from Chicago reported dissatisfaction among the underwriters interested on account of the price but it is possible that it was only gossip. The location of the wreck and the demand for a speedy removal of it are special difficulties attending the work and the contractors have also the assurance that they are dealing with a most reliable concern.

If Kingston had a grain elevator, the Canadian vessels that were compelled after waiting several days in Chicago to leave port without cargoes would not have been put to such great loss. Grain going to Montreal for export is transhipped at Kingston from lake vessels into St. Lawrence river barges direct. Just now there are no ocean steamers to take the grain from Montreal, and the whole traffic by that export route is blocked clear to its source, there being no elevators on the way where grain can be stored.

Capt. Henry Murphy of the Lackawanna steamer Grand Traverse caused the arrest of three members of the crew for attempting to desert the vessel at Green Bay. They had signed articles at Buffalo for the round trip, but on reaching that port attempted to leave the ship. Capt. Murphy went before a justice and swore out a warrant for their arrest. They were taken in custody and taken before the justice, who ordered them placed in the county jail until the Grand Traverse was ready to sail, when they were placed on board and forced to work back to Buffalo.

The delaying of the mails a short time ago at the Fort Wayne railroad bridge, Chicago, by the steamer Hudson of the New York Central line is being investigated by United States District Attorney Milchrist on complaint of the railroad company. On the evening in question the Hudson, in tow of two Dunham tugs, was coming down the river. After she had entered the south draw of the Fort Wayne railroad bridge it was found that the steamer Roby lay at the elevator, completely blocking the channel. Agent MacMillan charges that the harbormaster on duty did not remove the Roby from the channel, but ordered the Hudson to back out of the bridge draw. She ran her shoe and wheel in the mud and could not be pulled back. There she lay until the Roby had finished loading. Mr. MacMillan charges that the harbormaster utterly failed to do his duty and that the delaying of trains was due solely to that cause. If the district attorney decides to begin an action it will be a criminal one against the captain. He has said that maliciousness must be shown before the case will be pushed.

It may not be generally known that the sails of a vessel are so instrumental in focusing sounds that with a steady breeze and a smooth sea instances are on record of bells chimed on shore at a distance of many miles, as well as other noises, being heard distinctly, close to a large sail, but not elsewhere on board a vessel where the breeze blew clear through her rigging.—Marine Journal.

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Regulators for sale and will be supplied by:

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C. H. McCutcheon, Buffalo, N. Y.
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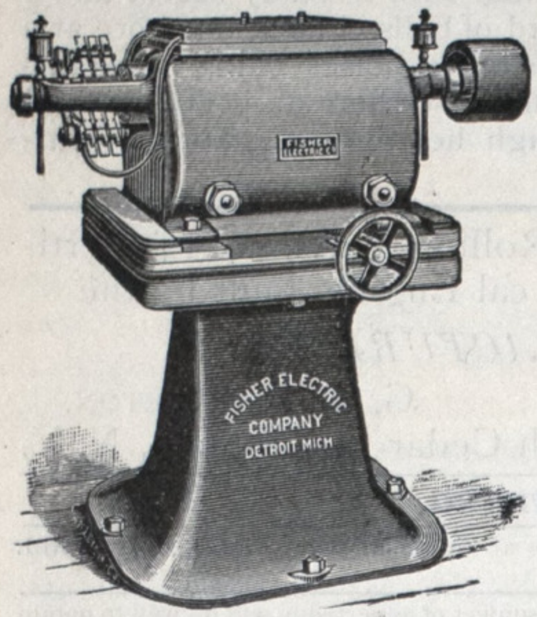
Detroit Sheet Metal & Brass Works, Detroit, Mich.
Chicago Ship Building Company, Chicago, Ill.
American Steel Barge Co., West Superior, Wis.

SALE OF THE REVENUE STEAMER "Bibb."—Treasury Department, Washington, D. C., Sept. 30, 1891. Will be sold at public auction, to the highest and best bidder, for cash, at 12 o'clock noon of Saturday, Oct 24, 1891, at Buffalo, N. Y., the revenue steamer "George M. Bibb." She is a screw propeller of 214 tons C. H. measurement, schooner rig with wire rigging. Was built in 1864 and thoroughly rebuilt and furnished with a new boiler, surface condenser, etc. in 1881. Her extreme length is 140 feet, beam, molded 22¾ feet, draft forward 7 feet 6 inches, aft 9 feet 9 inches. Has a Scotch tubular boiler, length 14½ feet, diameter 9½ feet, and an inverted, direct acting engine, diameter of cylinder, 32 inches, stroke of piston 32 inches, and is provided with a steam donkey-pump, windlass, sails, awnings, anchors, chain, etc. Certain articles of outfit will be sold separately at the same time. The vessel can be seen at Langdon's wharf, foot of Genesee street, Erie Basin, Buffalo, and will be open for inspection until the date specified. The sale will be subject to the approval of the Department. A deposit of $200 will be required of the highest bidder. CHARLES FOSTER,
Secretary.

SEE CAPT. PECK'S LETTER Regarding Incandescent Lighting Plant on the Steamer S. R. KIRBY.



NORTHWESTERN TRANSPORTATION CO.

DETROIT, MICH., Oct. 7, 1890.

FISHER ELECTRIC CO.,
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GENTLEMEN :—Replying to your inquiry regarding the operation of the 200 Light Incandescent Plant placed on the Steamer S. R. Kirby, we wish to say that the plant has operated during the season without an interruption and has not cost us one cent. No Lamps have been broken, and we would not be without it. Very truly yours,

E. M. PECK, President.

FISHER ELECTRIC COMPANY, 183, 185 & 187 Larned St., West, **DETROIT, MICH.**

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Space under this heading may be used gratis by our advertisers or subscribers to call attention to vessels or any craft, machinery, new or second hand, that they may have for sale. Those wanting machinery of any kind, or wishing to purchase vessels, are invited to take advantage of the same offer. Each item will be limited to three lines. Letters concerning same must mention number attached to item and be addressed MARINE REVIEW, 510 Perry-Payne Building, Cleveland. O.

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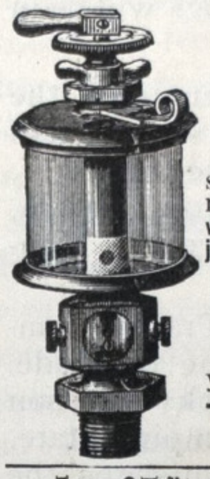

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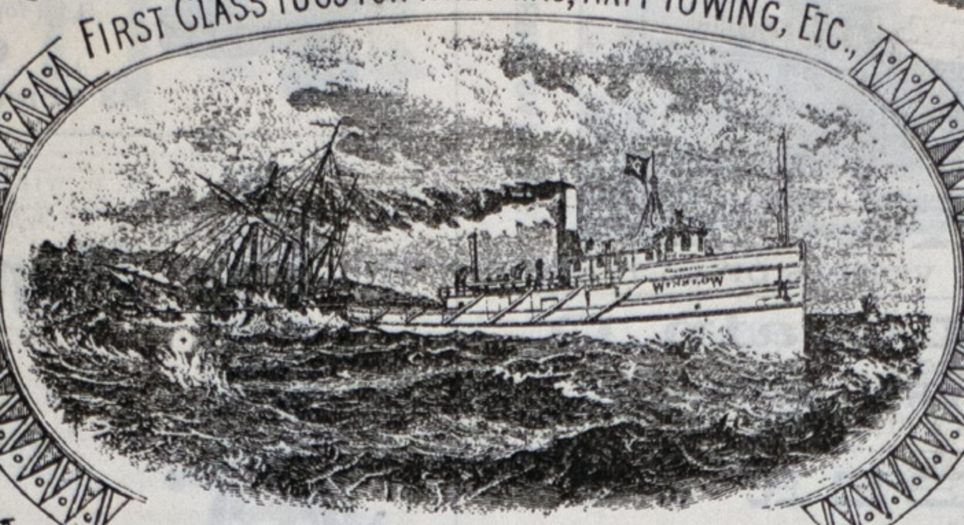

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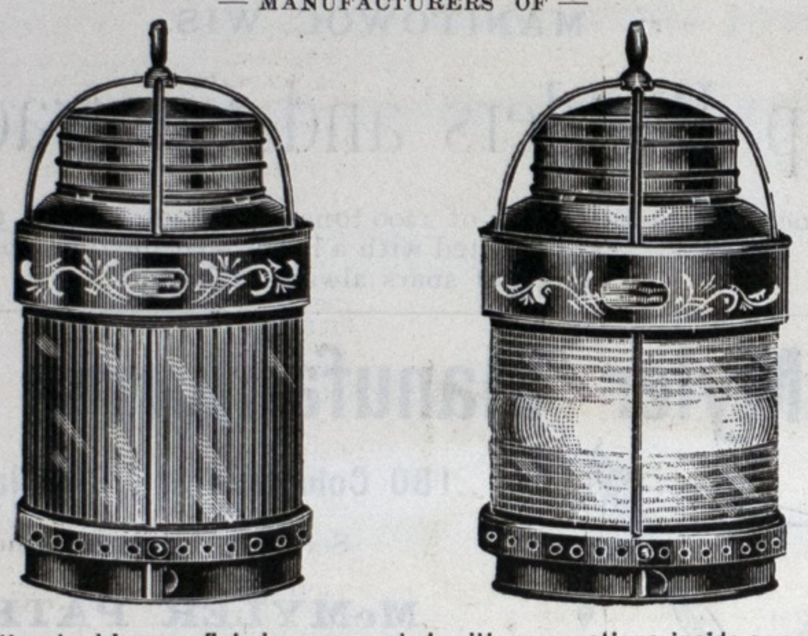

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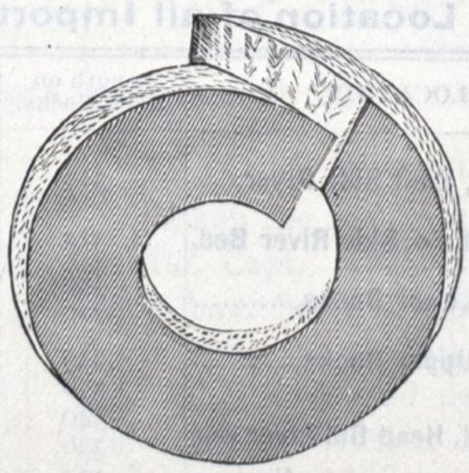

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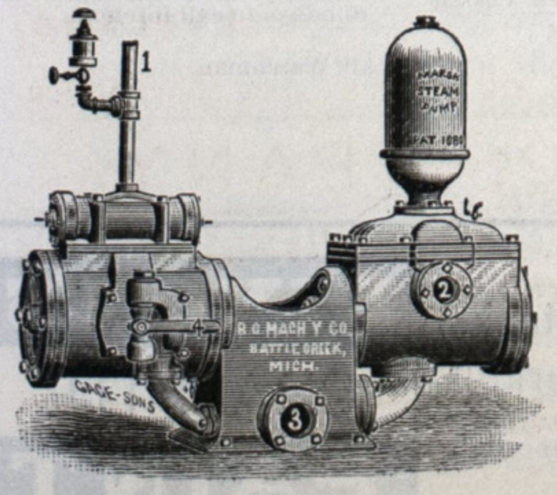

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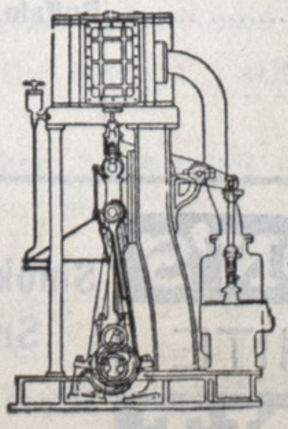

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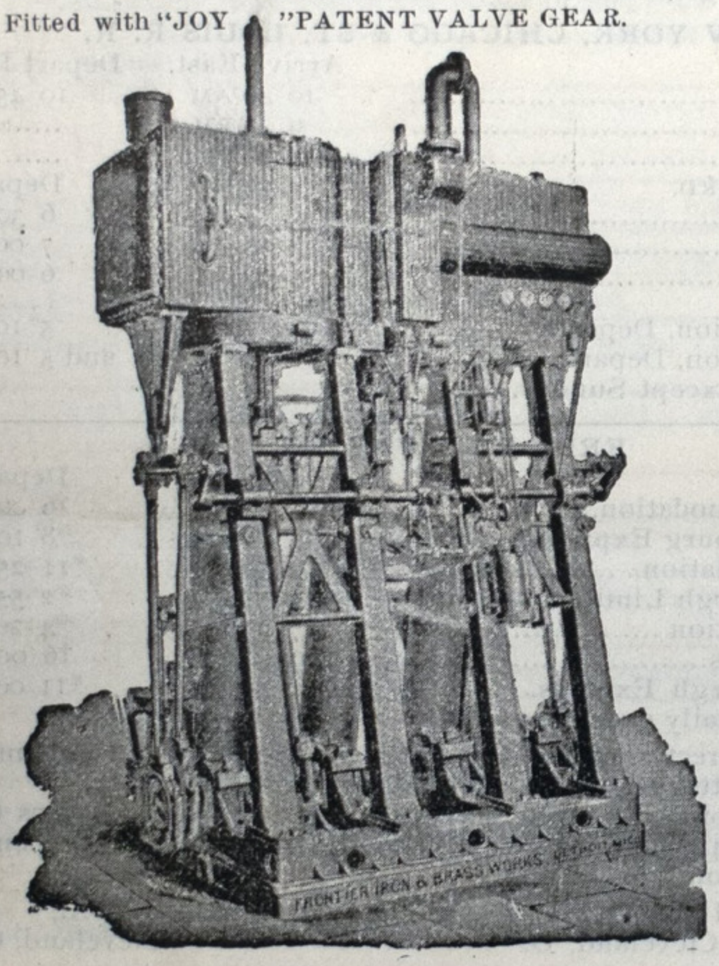

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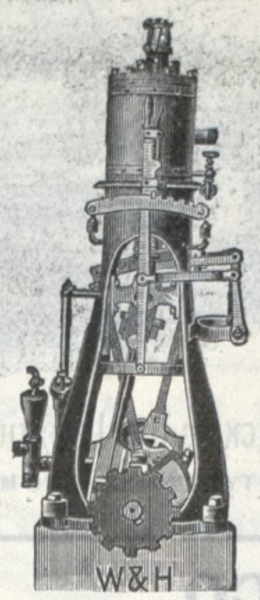

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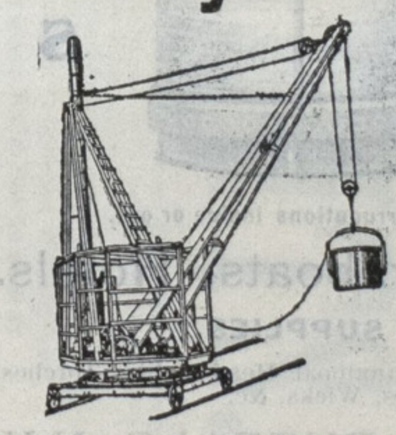

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